

Storm Data and Unusual Weather Phenomena

July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
Lagrange County 2 N Ligonier/ to 2 N Ligonier	02	0750EST 0751EST			0	0			Hail (1.00)
									Thunderstorm with hail occurred on county line between lagrange and noble county.
Huntington County .5 SE Huntington to In Huntington	02	1410EST 1420EST			0	0	20K		Hail (0.75)
									Thunderstorm winds knocked down trees and power lines across the northern one half of the county.
Adams County City Of Decatur	02	1452EST 1453EST			0	0			Thunderstorm Wind (G60)
									50 foot amateur radio tower folded over.
Wells County 10 W Decatur	02	1500EST 1501EST			0	0			Tstm Wind/Hail
									Trees and power lines down near town of Tocsin in Wells County.
Jay County 5 NE Portland	02	1530EST 1531EST			0	0	10K		Tstm Wind/Hail
									Trees and power lines down near Bryant.
Blackford County Montpellier	02	1540EST 1541EST			0	0			Hail (1.75)
Lagrange County Lagrange	08	1801EST 1802EST			0	0			Thunderstorm Wind (G60)
									trees down in city of lagrange2
Lagrange County 6 S Lagrange Near Eddy	08	1835EST 1836EST			0	0			Thunderstorm Wind (G60)
Noble County 2 S Rome City	08	1845EST 1846EST			0	0	0.50K		Tstm Wind/Hail
									several trees down
Steuben County Angola	08	1845EST 1846EST			0	0			Tstm Wind/Hail
									numerous large tree limbs down.
Williams County Near Bryan	08	1920EST 1921EST			0	0	0.50K		Tstm Wind/Hail
									several large trees down.
De Kalb County 2 S Ashley	08	1930EST 1931EST			0	0	0.50K		Tstm Wind/Hail
									wind damage and power lines down south of ashley and near corunna.

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Defiance County Near Defiance	08	2012EST 2013EST			0	0			Thunderstorm Wind (G60)
Allen County Near Cedarville	08	2030EST 2031EST			0	0			Thunderstorm Wind (G70)
Defiance County Near Hicksville	08	2045EST 2046EST			0	0			Thunderstorm Wind (G65)
Defiance County Across County	08	2135EST 2335EST			0	0	5K	5K	Flash Flood
			four inches rain over parts of county. widespread flooding throughout the county.						
Noble County Near Albion	14	1740EST 1741EST			0	0			Thunderstorm Wind (G65)
Huntington County 4 E Huntington	18	1615EST			0	0	5K		Thunderstorm Wind
			heavy wind damage-roof peeled of modular home. two trees in yard partially uprooted.						
Allen County Monroeville	18	1625EST			0	0			Thunderstorm Wind
			numerous trees in town of monroeville downed. brick siding blown off building.						
Steuben County Across County	21	1919EST 2230EST			0	0			Flash Flood
			widespread flooding across steuben county.						
Williams County Across County	21	1919EST 2230EST			0	0			Flash Flood
			widespread flooding cross county.						
Allen County Fort Wayne	23	0242EST 0600EST			0	0			Flash Flood
			spy run creek flooding in fort wayne.						
Whitley County 2 W South Whitley to South Whitley	23	0456EST 0800EST			0	0			Flash Flood
			four inches rain across southern whitley county. widespread road flooding and basements flooded.						
Huntington County North Part County	23	0639EST 0900EST			0	0			Flash Flood
			northern huntington county roads under water from 3 to 4 inches rain.						
Wabash County Nr North Manchester	23	0730EST 0900EST			0	0			Flash Flood
			northeast county roads and some north manchester streets under						

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water. 3 to 4 inches rain reported.									
Allen County 11 E Fort Wayne	26	2150EST 2151EST			0	0	20K		Thunderstorm Wind (G65)
barn blown down near highway 30 and state route 101.									
Wabash County Near Wabash	26	2240EST 2241EST			0	0			Tstm Wind/Hail
wind damage-power lines down.									
Noble County Albion to Merriam	27	1350EST 1400EST			0	0	20K		Tstm Wind/Hail
widespread tree damage with power lines down from albion to merriam.									
Whitley County Columbia City	27	1415EST 1416EST			0	0			Tstm Wind/Hail
wind damage to trees and power lines.									
Allen County Fort Wayne	27	1430EST 1435EST			0	0	1K		Tstm Wind/Hail
Trees and power lines down at Indianapolis and winter streets also on covington road.									
Wells County Highway 24/Cr 400W to Highway24/Cr400W	27	1530EST 1531EST			0	0			Tstm Wind/Hail
one large tree and several large limbs and power lines down.									
Adams County Across County	27	1535EST 1545EST			0	0			Tstm Wind/Hail
sheriff reports widespread trees and power lines down.									
<u>INDIANA, Central</u>									
Miami County Macy	18	1536EST			0	0	1K		Thunderstorm Wind
Thunderstorm winds blew down trees in Macy.									
Cass County Lucerne	18	1625EST			0	0	0.50K		Thunderstorm Wind
Thunderstorm winds blew down large tree limbs near Lucerne.									
INZ023	Miami								
	23	2100EST			0	0	1K		Flood
	24	1100EST							
Heavy rains of 2 to 6 inches in the headwaters of the Eel River caused minor agricultural flooding in Miami county from mid evening of the 23rd to midday on the 24th. Some trailer park evacuations may have been necessary upstream in North Manchester of Wabash County.									
INZ022	Cass								
	26	1200EST			0	0			Excessive Heat
	27	2359EST							

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<u>INDIANA, Central</u>									
INZ022	Cass								
	26	1200EST			0	0			Excessive Heat
	27	2359EST							
INZ022>023	Cass - Miami								
	26	1200EST			0	0			Excessive Heat
	27	2359EST							
<u>INDIANA, Northwest</u>									
Elkhart County									
Elkhart	02	0723EST			0	0	0		Thunderstorm Wind (G50)
A severe thunderstorm moved east across Elkhart county, producing strong winds and 1 inch diameter hail. Strong winds downed large trees and a 150 foot radio tower in Goshen.									
Elkhart County									
Goshen	02	0728EST			0	0			Hail (1.00)
Fulton County									
Rochester	02	1318EST 1328EST			0	0			Hail (1.75)
Kosciusko County									
Syracuse	02	1358EST			0	0			Hail (1.00)
Strong thunderstorms, producing downburst winds and heavy rains, developed over north central Indiana during the afternoon. Hail diameter ranging from one-inch to one and one-quarter inch was reported in Rochester and Syracuse.									
Elkhart County									
Elkhart	06	1500EST			0	0			Hail (1.00)
One inch hail was reported in the south part of Elkhart county.									
Elkhart County									
Elkhart	06	1545EST			0	0	0		Thunderstorm Wind (G50)
A thunderstorm produced strong winds which broke trees that were one-foot diameter.									
St. Joseph County									
Mishawaka	14	1605EST 1610EST			0	0	0		Thunderstorm Wind (G50)
Trees down in Mishawaka and throughout the northeast part of the county.									
La Porte County									
La Porte to Countywide	14	1630EST 1800EST			0	0			Thunderstorm Wind (G50)
Thunderstorm winds downed trees, power lines and produced pea to marble size hail.									
Kosciusko County									
Countywide	14	1700EST			0	0			Thunderstorm Wind (G50)
Trees and power lines downed throughout the county.									
St. Joseph County									
Lakeville	18	1434EST			0	0			Hail (1.75)
Marshall County									
Countywide	18	1458EST			0	0			Thunderstorm Wind (G50)
Marshall County									
Countywide	18	1510EST			0	0			Thunderstorm Wind (G50)
Trees and power lines were downed throughout the county.									
Fulton County									
Countywide	18	1515EST			0	0			Thunderstorm Wind (G50)
Kosciusko County									
Countywide	18	1530EST			0	0			Thunderstorm Wind (G50)

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INDIANA, Northwest									
White County									
Countywide	18	1730EST			0	0			Thunderstorm Wind (G50)
Severe thunderstorms produced large hail and 70 mph winds in Lakeville in southern St. Joseph county. The storms moved southeast through Marshall, Fulton and Kosciusko counties, blowing down tree limbs and power lines.									
St. Joseph County									
Mishawaka	27	1246EST			0	0			Thunderstorm Wind (G52)
Elkhart County									
Countywide	27	1255EST			0	0			Thunderstorm Wind (G50)
Thunderstorms produced wind gusts up to 60 mph, downed many trees and power lines. Elkhart County Sheriff reported the damage occurred in the northwest portion of the county.									
MICHIGAN, West									
Berrien County									
Stevensville	02	0544EST			0	0			Hail (0.75)
Berrien County									
Hollywood	02	0600EST			0	0	100K		Hail (2.25)
A Scottsdale area farmer reported 2 1/4" diameter hail fell for about 20 minutes during a severe thunderstorm on the morning of July 2, 1997. He estimated most of his 80 acres of fruit crops were damaged.									
Berrien County									
Berrien Springs	02	0610EST			0	0	1.2M		Hail (1.00)
A Berrien Springs area farmer estimated agricultural losses of near \$1 million from hail during a severe thunderstorm during the early morning hours of July 2, 1997. Paul Bixby reported 200 acres of fruits and 100 acres of vegetables destroyed from 1 inch diameter hail. The hail cut, scarred or took chunks out of apples and peaches and knocked a lot of the fruit off the trees. Sweet corn stalks were reportedly shredded. A U.S. Natural Resources Conservation Service resource conservationist for Berrien County reported that an inspection on July 2nd revealed the hail storm started in the vicinity of Lakeshore High School, near Stevensville, and extended southeast to the county line. He estimated a 2 mile wide swath along this path was affected by the hail. Other area fruit growers reported severe damage to crops which included apples, peaches, grapes, plums, tart cherries, and raspberries.									
Berrien County									
Berrien Springs	02	0615EST			0	0	300K		Thunderstorm Wind
Numerous 2 to 3 foot diameter trees were uprooted and several large trees were downed, damaging several Berrien Springs area homes, from straight-line winds in a severe thunderstorm. Wind gusts during the thunderstorm were estimated at 70 mph. A maple tree fell on a home at 10594 Old U.S. 31 at approximately 7:20 AM EDT. Another large tree came down on a house on Harrison Street, damaging the front and a ramp for the handicapped on the south side of the residence. A home on Rose Hill Street was damaged as 2 large trees destroyed a front porch, damaged the roof, and crushed 3 cars parked in the driveway. Other homes were damaged in the Bridlewood subdivision just south of Berrien Springs off Long Lake Road. A large tree fell through the roof of one home in this neighborhood, shattering a sun roof and sending a shower of glass through the cathedral ceiling onto the living-dining area of the two-level house. Numerous television antennas across the area were destroyed. One of the trees downed was a 300-year-old white oak along West Ferry Street, which was believed to be the oldest tree in the Berrien Springs area. It fell on a narrow lot, barely missing 2 homes. Trees blocked several area roads for hours and local flooding was reported. No injuries were reported.									
Berrien County									
Eau Claire	02	0625EST			0	0	25K		Thunderstorm Wind
Numerous trees and power lines were downed across the Eau Claire area. Several homes received minor damage from falling trees and limbs.									
Berrien County									
Niles	02	0645EST			0	0	50K		Thunderstorm Wind
Numerous trees were downed in the Niles area during the severe thunderstorm which produced estimated 70 mph winds across much of southeastern Berrien County. Falling trees downed power, phone, and cable lines. Minor damage was reported at several residences, including reports of patio furniture being swept away and a trampoline destroyed. Nearly 2 3/4 inches of rain fell in one hour at a Niles residence, with minor street flooding reported in the storm's aftermath.									
Cass County									
Dowagiac	02	0645EST			0	0	25K		Thunderstorm Wind

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MICHIGAN, West

Trees and power lines reported downed on the south side of Dowagiac. Lightning also damaged several power transformers.

Cass County Pokagon

02 0645EST 0 0 25K Thunderstorm Wind

Trees and power lines reported downed in Pokagon Township, in western Cass County.

Cass County Edwardsburg

02 0650EST 0 0 300K Thunderstorm Wind

More than six dozen large trees were uprooted with hundreds of other trees either split or missing large limbs after a severe thunderstorm with estimated 70 mph winds blew through the Edwardsburg area around 7:50 AM EDT Wednesday, July 2, 1997. Downed trees and utility poles limited travel by blocking at least 6 area roads and road crews worked through the day to clear debris. Almost all of the village's 1,200 residents were without power for most of the day. The hardest hit area of Pleasant Lake reported 16 large trees uprooted. On the south side of the lake along Washington Street, one home was destroyed. Trees were downed onto several houses. The Ontwa Township/Edwardsburg Police Department received reports of at least one boat having been thrown into trees by damaging winds. No injuries were reported.

An unusually intense storm system for July was centered over Minnesota early Wednesday morning, July 2, 1997. The low pressure center tracked east across Lake Superior Wednesday afternoon as the trailing strong cold front crossed Michigan's Lower Peninsula during the mid and late afternoon hours. The combination of a very warm, moist, and unstable air mass across the region and a favorable veering vertical wind profile fueled the development of widespread severe thunderstorms across the southern half of Michigan's Lower Peninsula. Within the NWSO Grand Rapids county warning area, one cluster of thunderstorms developed well ahead of the cold front on Wednesday morning around 6:00 AM EDT over Lake Michigan, then moved onshore into Berrien County around 6:30 AM EDT. As this isolated cluster of severe thunderstorms crossed central and southeast Berrien County and western and southern Cass County, hail up to 2 1/4" in diameter fell and straight-line winds were estimated as high as 70 mph. Widespread agricultural hail damage was reported in central Berrien County and a significant amount of wind damage to homes was reported in Berrien Springs and Edwardsburg. Power outages across Berrien and Cass Counties totaled 21,500 with this cluster of severe thunderstorms. During the early afternoon hours, a line of severe thunderstorms developed in Gratiot County in central Lower Michigan, then developed southwest between 3:00 and 4:30 PM EDT and affected Calhoun, Eaton, Ingham, and Clinton Counties. A small F0 tornado touched down in southwest Gratiot County, but no damage or injuries were reported. Hail up to 1 inch in diameter and wind gusts to 70 mph were associated with this line of severe thunderstorms as it crossed south central Lower Michigan. The most significant damage occurred in East Lansing in northwest Ingham County as a wet microburst occurred between 4:13 and 4:18 PM EDT. Damage was estimated to be near half a million dollars. However, no injuries were reported.

Hillsdale County Litchfield

06 1532EST 0 0 Hail (0.75)

Hillsdale County Osseo

08 1830EST 0 0 10K Thunderstorm Wind

Hillsdale County Emergency Operations reported trees and electrical wires downed 3 miles southeast of Hillsdale near Osseo and Pleasant Lake, in Jefferson Township. Power was cut for approximately 400 Consumers Energy customers.

Berrien County Buchanan

14 1520EST 0 0 30K Thunderstorm Wind

Several trees and power lines were downed in Buchanan Township. Major tree damage was reported from 2 area golf courses, Orchard Hills and Brookwood. Orchard Hill was hit hardest and was closed through Tuesday, July 15, 1997, for clean up. The greens superintendent reported 25 trees downed by the winds. Brookwood Golf Course did not report as much damage, but had a significant number of trees downed, approximately 100, which ranged from 10 inches to 4 feet in diameter. No injuries were reported.

Berrien County Niles

14 1545EST 0 0 2.5K Thunderstorm Wind

Niles Police Department reported trees downed in Niles.

Cass County Dowagiac

14 1635EST 0 0 5K Thunderstorm Wind

Cass County Central Dispatch reported trees and power lines knocked down in the Dowagiac area.

Cass County Edwardsburg

14 1635EST 0 0 5K Thunderstorm Wind

Cass Central Dispatch reported downed trees and power lines in the Edwardsburg area.

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MICHIGAN, West

**St. Joseph County
Centreville** **14** **1642EST** **0** **0** **5K** **Thunderstorm Wind**
Trees were downed in Centreville, some of which fell across area roads.

**St. Joseph County
2 N Sturgis** **14** **1642EST** **0** **0** **2.5K** **Thunderstorm Wind**
Trees downed 2 miles north of Sturgis.

**St. Joseph County
Three Rivers** **14** **1642EST** **0** **0** **2.5K** **Thunderstorm Wind**
Trees downed in the Three Rivers area.

**Branch County
County-Wide** **14** **1747EST** **0** **0** **10K** **Thunderstorm Wind**
Scattered reports of trees and power lines down across portions of western Branch County.

**Hillsdale County
2 W Hillsdale** **14** **1800EST** **0** **0** **2.5K** **Thunderstorm Wind**
Hillsdale County Emergency Operations reported a couple of trees downed 2 miles west of Hillsdale.

A cold front moved east across Lake Michigan and Michigan's Lower Peninsula during the afternoon and evening hours of Monday, July 14, 1997. As this frontal boundary collided with the warm and unstable air mass across the state, strong to locally severe thunderstorms developed mainly across the southern two tier of counties. Isolated reports of hail to nickel-size and wind gusts to 70 mph were received. Downed trees and power lines cut power to approximately 48,000 Consumers Energy customers in southwest and south central Lower Michigan. No injuries were reported.

**Cass County
Edwardsburg** **27** **1300EST** **0** **0** **5K** **Thunderstorm Wind**
Cass County Central Dispatch reported downed trees and power lines in Edwardsburg.

**St. Joseph County
Constantine** **27** **1322EST** **0** **1** **Lightning**
An adult woman in Constantine was struck by lightning at 2:22 PM EDT at 10884 Harder Road. Michigan State Police reported she sought medical treatment at Three Rivers Area Hospital, where she was treated and released for minor injuries.

**St. Joseph County
White Pigeon** **27** **1345EST** **0** **0** **20K** **Thunderstorm Wind**
St. Joseph County Central Dispatch reported downed trees and power lines across White Pigeon Township. One tree landed on a vehicle at 309 S. Washington Street in White Pigeon. Intermittent power outages occurred at the height of the storm.

OHIO, North

**Henry County
Ridgeville Corners** **08** **2015EST** **0** **0** **2K** **Thunderstorm Wind**
Trees and limbs were downed.

**Henry County
Countywide** **08** **2055EST** **0** **0** **Flood**
Heavy rain caused flooding of underpasses and low lying areas.

**Henry County
Hamler** **08** **2055EST** **0** **0** **2K** **Thunderstorm Wind**
Trees and limbs were downed and a 61 mile per hour wind gust was reported.

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OHIO, Southwest

Van Wert County

Van Wert	02	1530EST 1535EST			0	0	5K		Thunderstorm Wind (G50)
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Numerous trees downed.

A low pressure system with an unusually strong mid and upper level jet streak was moving across the Great Lakes with an associated cold front moving across the upper Ohio valley. Thunderstorms developed across Indiana and moved into West-Central Ohio around mid-afternoon with a distinct bow echo causing wind damage from near to Lima to southeast of Columbus. On the southern edge of the first line of storms, a supercell developed over Central Indiana. This storm evolved into a bow echo and swept across the Dayton metro area causing extensive wind damage and a brief tornado in Greene county. Another supercell developed near Cincinnati and moved southeastward along the Ohio River. This storm produced the F3 tornado in Clermont county.

Putnam County

Leipsic	08	2110EST			0	0			Thunderstorm Wind (G52)
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An observer reported a wind gust to 60 mph.

Putnam County

Ottawa to Columbus Grove	08	2238EST 2330EST			0	0	10K		Flood
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Heavy rainfall caused streets to flood. Also, Cranberry creek flooded a few homes.

Putnam County Columbus Grove

	08	2307EST			0	0			Thunderstorm Wind (G53)
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An observer reported a wind gust to 62 mph.

Allen County Bluffton

	08	2330EST			0	0			Thunderstorm Wind (G52)
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An observer reported a wind gust to 60 mph.

OHZ016

Putnam

	09 12	1600EST 0000EST			0	0			Flood
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Heavy rainfall caused the Blanchard River at Ottawa to rise out of its banks. The river crested at 26.4 feet around 100 pm est on the 10th.

Van Wert County

2 SE Dixon to 2 SE Van Wert	18	1615EST 1630EST			0	0	75K		Thunderstorm Wind (G80)
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Two barns were severely damaged, a grain bin was destroyed, and a three car garage was moved one foot off its foundation just east of Dixon. Also, numerous trees were downed. This storm also produced up to golf ball size hail near Van Wert.

Allen County Countywide

	18	1715EST 1730EST			0	0	40K		Thunderstorm Wind (G60)
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Two campers were overturned, a barn was damaged, and numerous trees and power lines were downed.

Putnam County

Cloverdale	26	2008EST 2015EST			0	0	3K		Thunderstorm Wind (G50)
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Trees downed.

A warm front which was across central Ohio at peak heating on the 26th became the focus for a Mesoscale Convective System that lasted well into the early morning hours on the 27th. Severe thunderstorms moved repeatedly over the same areas causing substantial damage. The continuous rainfall also caused flash flooding in Licking county. Over 400 homes received damage from the combined severe thunderstorm and flooding event.